Environmental Assessment Checklist

Project Name: Clay Banks Timber Sale
Proposed Implementation Date: May, 2017
Proponent: Libby Unit, Northwest Land Office, Montana DNRC
County: Lincoln

Type and Purpose of Action

Description of Proposed Action:

The Libby Unit of the Montana Department of Natural Resources and Conservation (DNRC) is proposing the Clay Banks Timber Sale. The project is located approximately 2 miles south of Libby (refer to Attachments vicinity map A-1 and project map A-2) and includes the following sections:

Beneficiary	Legal Description	Total Acres	Treated Acres
Public Buildings	**T30N R31W S14 & 24**	**800**	**517**

Objectives of the project include:

- Maximizing the return to the Public Buildings Trust Fund by intensively managing for healthy and biologically diverse forests.
- Promote the continued presence and/or reestablishment of historically appropriate timber types on Trust Land included in this project.
- Reduce fire hazard and associated risks of loss to neighboring properties in the wildland urban interface, the State of Montana, and United States Forest Service.

Proposed activities include:

Action	Quantity
Proposed Harvest Activities	# Acres
Commercial Thinning	517
Total Treatment Acres	**517**
Proposed Road Activities	# Miles
New permanent road construction	0.6
New temporary road construction	1.0
Road maintenance	0.9
Road reconstruction	1.6

Duration of Activities:	≈36 months
Implementation Period:	May, 2017 – June, 2020

The lands involved in this proposed project are held in trust by the State of Montana. (Enabling Act of February 22, 1889; 1972 Montana Constitution, Article X, Section 11). The Board of Land Commissioners and the DNRC are required by law to administer these trust lands to produce the largest measure of reasonable and legitimate return over the long run for the beneficiary institutions (Section 77-1-202, MCA).

The DNRC would manage lands involved in this project in accordance with:

- The State Forest Land Management Plan (DNRC 1996),
- Administrative Rules for Forest Management (ARM 36.11.401 through 471),
- All other applicable state and federal laws.

Project Development

SCOPING:

- DATE:
  - March 18 – April 29, 2011
- PUBLIC SCOPED:
  - The scoping notice was posted on the DNRC Website: http://dnrc.mt.gov/PublicInterest/Notices/Default.asp
  - Adjacent landowners
  - Statewide scoping list
  - Public Notice in the Western News
- AGENCIES SCOPED:
  - MFWP
  - USFS
  - All Montana Tribal Organizations
- COMMENTS RECEIVED:
  - How many: 3 (1 telephone, 1 email, 1 personal communication)
  - Concerns: FWP requested additional information be made available to them as it is developed. CSKT desired to know the level of disturbance in the project area. USFS required protection of site 24LN2259 – an unevaluated and limited lithic scatter than may extend into Section 13, T30N R31W (USFS land).
  - Results (how were concerns addressed): FWP will be notified of the signed EA with the information we have to date. CSKT was told about the disturbance of the White Haven area and the historic logging and associated ubiquitous ground disturbance that occurred in 1923-24. USFS and DNRC cooperated in our cost share program to document, evaluate, and propose alternatives to on-going disturbance of cultural remains in the project area, as well as possible mitigation of adverse effects to heritage properties/historic properties.
  - As an effort to limit future disturbance of cultural materials in site 24LN2259, the USFS requires filter fabric covered with 6 inches of crushed rock placed on the existing segment of road on USFS land prior to construction activities.

DNRC specialists were consulted, including: Jeremy Rank (Management Forester), Tony Nelson (Hydrologist), Leah Breidinger (Wildlife Biologist), Patrick Rennie (Archaeologist) and Norm Kuennen (Rights of Way)

Internal and external issues and concerns were incorporated into project planning and design and will be implemented in associated contracts.

OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED: *(Conservation Easements, Army Corps of Engineers, road use permits, etc.)*

- **Montana Department of Environmental Quality (DEQ)-** DNRC is classified as a major open burner by DEQ and is issued a permit from DEQ to conduct burning activities on state lands managed by DNRC. As a major open-burning permit holder, DNRC agrees to comply with the limitations and conditions of the permit.

  A Short-term Exemption from Montana's Surface Water Quality Standards (318 Authorization) may also be required from DEQ if activities such as replacing a bridge on a stream would introduce sediment above natural levels into streams.

- **Montana/Idaho Airshed Group-** The DNRC is a member of the Montana/Idaho Airshed Group which was formed to minimize or prevent smoke impacts while using fire to accomplish land management objectives and/or fuel hazard reduction (Montana/Idaho Airshed Group 2006). The Group determines the delineation of airsheds and impact zones throughout Idaho and Montana. Airsheds describe those geographical areas that have similar atmospheric conditions, while impact zones describe any area in Montana or Idaho that the Group deems smoke sensitive and/or having an existing air quality problem (Montana/Idaho Airshed Group 2006). As a member of the Airshed Group, DNRC agrees to burn only on days approved for good smoke dispersion as determined by the Smoke Management Unit.

- **Montana Department of Fish, Wildlife and Parks (DFWP)-** A Stream Protection Act Permit (124 Permit) is required from DFWP for activities that may affect the natural shape and form of a stream's channel, banks, or tributaries. Such activities include:
  - Preparing for and installation of one corrugated metal pipe where a temporary road crosses a class 2 stream.

ALTERNATIVES CONSIDERED:

No-Action Alternative: Under this alternative, no timber would be harvested and therefore no revenue would be generated from the project area for Public Buildings Trust at this time. Salvage logging, firewood gathering, recreational use, fire suppression, noxious-weed control, may still occur. Natural events, such as forest succession, tree mortality due to insects and diseases, windthrow, down fuel accumulation, in-growth of ladder fuels, and wildfires, would continue to occur.

Action Alternative: A commercial timber harvest would take place to remove approximately 3.3 million board feet of timber. Timber would be harvested using ground-based methods on ≈369 acres and skyline logging on ≈148 acres. Commercial thinning would take place across 517 acres to promote forest health and increase growth. Commercial timber harvest would reduce the potential for high intensity wildland fire adjacent to private landowners and two subdivisions. Road maintenance and Best Management Practices (BMP) improvements would be performed on 0.9 miles, road reconstruction would be performed on 1.6 miles, 0.6 miles new permanent road would be constructed on USFS, and 1.0 miles of temporary road would be constructed and obliterated on State land.

Impacts on the Physical Environment

Evaluation of the impacts on the No-Action and Action Alternatives including **direct, secondary, and cumulative** impacts on the Physical Environment.

VEGETATION:

Vegetation Existing Conditions: Past and current events have changed the forest conditions on the parcels involved in the project area from what would have been present historically according to Losensky's "Historical Vegetation of Montana" (1997). The area being analyzed was historically characterized by cool under burns at 15-25 year intervals that promoted open stands, while hotter stand replacing fires occurred at intervals of 300 years plus. Since the early 1900's, fire has been virtually eliminated from the project area. The site was heavily logged by Clyde skidder in 1923-1924 and subsequently burned. That sale removed 12.5 million board feet of timber. Natural regeneration did occur and has created a well-stocked, even aged, mature stand of diverse conifer and hardwood species. There is an increasing amount of understory of shade tolerant Douglas-fir and Grand fir.

The project area has no threatened, endangered or species of concern occurrences of plant species according to the Montana Natural Heritage Program database. Field measurements verified that there is no old growth in the project area.

The mature condition of the naturally regenerated parcel exhibits very good quality, form class, spacing and a low incidence of disease and mortality. Field observation notes very few snags, even fewer of which are older than 1924. Thus, standing high quality wildlife snags are rare and are to be protected. Snag recruits however are plentiful.

Vegetation	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Noxious Weeds	x				x				x					
Rare Plants	x				x				x					
Vegetative community		x				x				x			N	1
Old Growth	x				x				x					
Action														
Noxious Weeds		x				x				x			Y	2
Rare Plants	x				x				x					
Vegetative community			x			x				x			Y	3
Old Growth	x				x				x					

Comments:

1. The area has an increasing amount of shade tolerant Douglas-fir and grand fir understory. This is a result of fire suppression and historical logging practices. The

result of no action is a continues progression away from the site's major potential vegetation and the desired state of seral species
2. Construction of new roads and operating logging equipment off road would likely open the site for the introduction of noxious weeds.
3. The proposed action alternative would harvest timber on 517 acres. Management activities would focus on the perpetuation of 392 acres of Ponderosa Pine cover type and work toward the development of the Western larch/Douglas-fir cover type on 125 acres by creating opportunities for Western larch to naturally regenerate.

Vegetation Mitigations:

- Largest diameter snags will be protected to assure retention of 1 snag and 1 snag recruit per acre in all units.
- Ponderosa pine, western larch and would be favored leave trees in all canopy levels.
- To deter further establishment of noxious weeds along roads, grass seed and fertilizer would be applied to areas with soil exposed during road construction and maintenance activities.
- To minimize noxious weed invasion away from roads, "off road" logging equipment would be inspected and required to be free of weed parts prior to moving onto the site.

SOIL DISTURBANCE AND PRODUCTIVITY:

Soil Disturbance and Productivity Existing Conditions: The proposed project area has a low standard road system that was constructed to haul timber during the last timber sale entry in 1924. Existing skid trails from the prior entry have ameliorated due to root penetration and frost action, and impacts from past entries are no longer apparent. Coarse woody debris in the project area ranges from 0-9.1 tons/acre with an average of 4.2 tons/acre.

Soil Disturbance and Productivity	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Physical Disturbance (Compaction and Displacement)	X				X				X					
Erosion	X				X				X					
Nutrient Cycling	X				X				X					
Slope Stability	X				X				X					
Soil Productivity	X				X				X					
Action														
Physical Disturbance (Compaction and Displacement)		X				X				X			Y	1, 4
Erosion	X					X				X			Y	1
Nutrient Cycling	X					X				X			Y	2
Slope Stability	X				X				X					

Soil Disturbance and Productivity	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Soil Productivity		X				X				X			Y	3

Comments:

1. Standard erosion control measures would provide effective erosion prevension.
2. Based on research by Graham, et. al. (1994), habitat types found in the project area should have 7-24 tons/acre of coarse woody debris for nutrient cycling. Currently, much of the proposed project area is below this level. Logging residue left on the ground as mitigation would have a positive effect on nutrient cycling and improve the project area over the current condition
3. Soil productivity would be impacted by road construction and the use of ground-based machinery to yard timber. As stated in comment 4, levels of ground disturbance are expected to be less than 10% with roads included, which is well below the range analyzed for in the EXPECTED FUTURE CONDITIONS section of the SFLMP, and well within the 20-percent impacted area established as a level of concern in the SFLMP (DNRC 1996). This level translates to a low risk of low direct, secondary and cumulative impacts to soil productivity.
4. Based on DNRC soil monitoring on similar soils with similar harvest intensity, approximately 8.1% of area may be in an impacted condition (DNRC, 2006). This level is below the range analyzed for in the EXPECTED FUTURE CONDITIONS section of the State Forest Land Management Plan (SFLMP), and well within the 20-percent impacted area established as a level of concern in the SFLMP (DNRC 1996). This level translates to a low risk of low direct, secondary, and cumulative impacts to soil physical disturbance.

Soil Mitigations:

- Operate ground-based equipment only during periods of dry, frozen or snow-covered conditions
- Space skid trails a minimum of 60 feet apart to minimize areas impacted by ground-based equipment
- Use existing skid trails if they are in suitable locations to minimize potential for cumulative impacts to soil physical disturbance
- Leave approximately 10-15 tons of woody material 3-inches in diameter or greater on the ground for nutrient cycling

WATER QUALITY AND QUANTITY:

Water quality was assessed based on a class 1 and class 2 stream system in section 24 of the proposed project area, and a class 3 stream channel in section 14 of the proposed project area. There is a very low risk that water quantity would be increased sufficient to alter or destabilize stream channels as a result of the proposed project. Commercial thinning typically has little effect on water quantity at a site since approximately half of the live canopy is removed, and remaining trees grow more vigorously following activity. As a result, water use and snowpack

distribution are not changed substantially enough to create measurable or observable increases in water quantity.

Water Quality and Quantity Existing Conditions: All identified stream channels in the proposed project area were found to be stable and well-vegetated during field reconnaissance.

Water Quality & Quantity	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Water Quality	X				X				X					
Water Quantity	X				X				X					
Action														
Water Quality		X				X				X			Y	1
Water Quantity		X				X				X			Y	2

Comments:

1. All requirements found in ARM 36.11.301-313, and ARM 36.11.421-427 would be implemented, where applicable. In addition, all applicable forest management BMPs would be implemented. These measures would minimize any potential risk of sediment delivery to a stream or draw and leave a low risk of direct, secondary or cumulative impacts to water quality.
2. There is a very low risk of any proposed activities leading to increases in water quantity sufficient to destabilize any project area stream channel due to the low intensity of the commercial thin harvest prescription.

Water Quality & Quantity Mitigations:

- Avoid use of ground-based equipment in the bottoms of draws to reduce risk of scour, compaction or routing of surface runoff in draws
- Implement all applicable BMPs and SMZ Law rules to ensure protection of project area streams

FISHERIES:

Fisheries Existing Conditions: One class 1 stream channel was identified in section 24 of the proposed project area during field reconnaissance. No fish were identified in this stream system, and the presence of fish is not known in this unnamed tributary to Libby Creek. No proposed harvest activity is proposed within the SMZ or flood-prone area of Libby Creek.

No-Action: No direct or indirect impacts would occur to affected fish species or affected fisheries resources beyond those described in Fisheries Existing Conditions. Cumulative effects (other related past and present factors; other future, related actions; and any impacts described in Fisheries Existing Conditions) would continue to occur.

Action Alternative (see Fisheries table below):

Fisheries	Impact	Can	Comment

	Direct				Secondary				Cumulative				Impact Be Mitigated?	Number
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Sediment	X				X				X					
Flow Regimes	X				X				X					
Woody Debris	X				X				X					
Stream Shading	X				X				X					
Stream Temperature	X				X				X					
Connectivity	X				X				X					
Populations	X				X				X					
Action														
Sediment	X					X				X			Y	1
Flow Regimes	X				X				X					
Woody Debris	X					X				X			Y	1
Stream Shading		X				X				X			Y	1
Stream Temperature	X					X				X			Y	1
Connectivity	X				X				X					
Populations	X				X				X					

Comments:

1. All possible low impacts would be mitigated by following all applicable rules found in ARM 36.11.301-313. In addition, proposed new stream crossings would be designed and implemented only after consulting with a Montana Department of Fish, Wildlife and Parks fisheries biologist and obtaining a SPA-124 permit and any mitigation measures designed through that process.

Fisheries Mitigations:

- Implement all applicable rules found in ARM 36.11.301-313
- Implement all mitigation measures laid out by FWP fisheries biologist for proposed new stream crossings

References

- Brown, J. K. 1974. *Handbook for Inventorying Downed Woody Material.* In: USDA and Forest Service (editors). Ogden, Utah: Intermountain Forest and Range Experiment Station.
- DNRC, 2011. DNRC Compiled Soils Monitoring Report on Timber Harvest Projects. Missoula, MT.
- DNRC, 1996. State Forest Land Management Plan. Montana Department of Natural Resources and Conservation. Missoula, MT.
- Graham, R. T., A. E. Harvey, M. F. Jurgensen, T. B. Jain, J. R. Tonn and D. S. Page-Dumroese. 1994. Managing Coarse Woody Debris in Forests of the Rocky Mountains. USDA Forest Service Research Paper. INT-RP-447. 13 pp.
- NRCS, 1998. MT634-Soil Survey of Kootenai National Forest Area, Montana and Idaho. United States Department of Agriculture Natural Resources Conservation Service.

WILDLIFE:

No-Action: None of the proposed activities would occur. In the short-term, no changes to the amounts, quality, or spatial arrangement of mature forested habitat would occur. In the long-term and in the absence of natural disturbance, habitat availability would increase for species preferring open mature forest stands while habitat availability would decrease for species preferring dense mature forest stands.

Action Alternative (see Wildlife table below):

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Threatened and Endangered Species														
Grizzly bear *(Ursus arctos)* Habitat: Recovery areas, security from human activity	X				X				X					
Canada lynx *(Felix lynx)* Habitat: Subalpine fir habitat types, dense sapling, old forest, deep snow zone	X				X				X					
Sensitive Species														
Bald eagle *(Haliaeetus leucocephalus)* Habitat: Late-successional forest within 1 mile of open water		X				X				X			Y	WI-1
Black-backed woodpecker *(Picoides arcticus)* Habitat: Mature to old burned or beetle-infested forest	X				X				X					
Coeur d'Alene salamander *(Plethodon idahoensis)* Habitat: Waterfall spray zones, talus near cascading streams	X				X				X					
Columbian sharp-tailed grouse *(Tympanuchus Phasianellus columbianus)* Habitat: Grassland, shrubland, riparian,	X				X				X					

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
agriculture														
Common loon *(Gavia immer)* Habitat: Cold mountain lakes, nest in emergent vegetation	X				X				X					
Fisher *(Martes pennanti)* Habitat: Dense mature to old forest less than 6,000 feet in elevation and riparian		X				X				X			Y	WI-2
Flammulated owl *(Otus flammeolus)* Habitat: Late-successional ponderosa pine and Douglas-fir forest		X				X				X			Y	WI-3
Gray Wolf *(Canis lupus)* Habitat: Ample big game populations, security from human activities		X				X				X			Y	WI-4
Harlequin duck *(Histrionicus histrionicus)* Habitat: White-water streams, boulder and cobble substrates	X				X				X					
Northern bog lemming *(Synaptomys borealis)* Habitat: Sphagnum meadows, bogs, fens with thick moss mats	X				X				X					
Peregrine falcon *(Falco peregrinus)* Habitat: Cliff features near open foraging areas and/or wetlands	X				X				X					
Pileated woodpecker *(Dryocopus pileatus)* Habitat: Late-successional ponderosa pine and larch-fir forest		X				X				X			Y	WI-5
Townsend's big-eared bat *(Plecotus townsendii)* Habitat: Caves, caverns, old mines	X				X				X					

Wildlife	Impact												Can Impact be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Wolverine *(Gulo gulo)* Habitat: Alpine tundra and high-elevation boreal forests that maintain deep persistent snow into late spring	X				X				X					
Big Game Species														
Elk		X				X				X			Y	WI-6
Whitetail		X				X				X			Y	WI-6
Mule Deer		X				X				X			Y	WI-6
Other	X				X				X					

Comments:

WI-1 Bald eagle - The Project Area has been used by nesting bald eagles in the past, but the most recent nest tree (2013) was damaged and a new nest has not been located. If a nest is found, all mechanized activities including logging and hauling would be minimized from February 1 – August 15 within ½ mile of the nest. Large emergent trees would be retained throughout the Project Area.

WI-2 Fisher – The Action Alternative would affect 11 acres of fisher habitat (6.3% of habitat available in the Project Area; 0.3% of habitat in the Wildlife Cumulative Effects Analysis Area). Fisher riparian habitat would not be harvested. To reduce potential adverse effects on fishers, at least 1 large snags and 1 large snag recruitment trees per acre (>21 inches dbh) would be retained (*ARM 36.11.411*) and potential fisher riparian habitat with large snags adjacent to Libby Creek would not be harvested.

WI-3 Flammulated owls – The proposed activities would occur in 208 acres of habitat types that are suitable for flammulated owls. The proposed activities would open the stands to 45-55% canopy cover, improving stand structure for flammulated owls which prefer a more open stand physiognomy. Some snags could be removed by the proposed harvest, but at least 1 large snag and 1 large snag recruitment tree per acre (>21 inches dbh) would be retained (*ARM 36.11.411*). Logging activity could temporarily displace flammulated owls in the vicinity of the Project Area, but overall, beneficial effects to flammulated owls are anticipated considering improvements to forest stand structure for owl habitat.

WI-4 Gray wolves - Wolves may use habitat in the vicinity of the Project Area. Disturbance associated with timber sales at den and rendezvous locations can adversely affect wolves; however, timing restrictions would apply if den or rendezvous sites are documented (*ARM 33.11.430(1)(a)(b)*).

WI-5 Pileated woodpeckers – The proposed activities would affect 117 acres (45% of habitat available in the Project Area; 3.1% Wildlife Cumulative Effects Analysis Area). After harvesting is complete, these acres will retain approximately 45-55% mature canopy cover and will continue providing suitable pileated woodpecker habitat, albeit at a reduced quality. To reduce potential adverse effects on pileated woodpeckers, at least 1 large snag and 1 large snag

recruitment tree per acre (>21 inches dbh) would be retained and all snags cut for safety reasons would be left in the harvest unit (*ARM 36.11.411*).

WI-6 Big game - Approximately 518 acres of potential white-tailed deer, mule deer, and elk winter range would be treated with a commercial thin under the Action Alternative; reducing mature canopy cover to 45-55%. These acres would continue providing suitable stand conditions for wintering animals; however the effectiveness of thermal cover at reducing wind velocity and snow accumulation would be reduced. To reduce adverse impacts on wintering big game animals, illegal motorized trails would be closed and the portions of the Project Area adjacent to Libby Creek would not be harvested.

Wildlife Mitigations:

- If a threatened or endangered species is encountered, consult a DNRC biologist immediately. Similarly, if undocumented nesting raptors or wolf dens are encountered within ½ mile of the Project Area, contact a DNRC biologist.
- Bald eagle timing restrictions will be implemented from February 1- August 15 if a nest site is documented.
- Contractors will adhere to food storage and sanitation requirements as described in the timber sale contract. Ensure that all attractants such as food, garbage, and petroleum products are stored in a bear-resistant manner.
- Prohibit contractors and purchasers conducting contract operations from carrying firearms while on duty as per *ARM 36.11.444(2)* and *GB-PR2* (*USFWS and DNRC 2010)*.
- Restrict public access at all times on restricted roads that are opened for harvesting activities. Effectively close temporary and illegal roads and motorcycle trails in the project area via a combination of kelly humps, rocks, and road obliteration.
- Retain at least 1 snag and 1 snag recruit per acre >21 inches dbh or the next available size class. If snags are cut for safety concerns, they must be left in the harvest unit. Retain coarse-woody debris according to *ARM 36.11.414* and emphasize retention of 15-inch diameter downed logs where they occur.

AIR QUALITY:

Air Quality	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Smoke	x				x				x					
Dust	x				x				x					
Action														
Smoke		x				x				x			Y	1,2
Dust		x			x				x				Y	3

Comments:

1. The project area is located in Montana Airshed 1 and inside the Libby impact zone. Slash piles consisting of tree limbs, tops and other vegetative debris would be created throughout the project area during harvesting. These slash piles would ultimately be burned after harvesting operations have been completed
2. Burning that may occur on adjacent properties in combination with the proposed action could potentially increase cumulative impacts to the local airshed. Thus cumulative impacts to air quality due to slash pile burning associated with the proposed action would also be expected to be minimal.
3. Dust may be generated by log hauling activities during dry conditions. However, because dust would be localized to skid trails and haul roads and operating seasons would be short in duration, effects to air quality as a result of dust generated during harvest activities are expected to be low.

Air Quality Mitigations:

- Burning within the project area would be short in duration and would be conduction when conditions favor good ventilation and smoke dispersion. Actions would adhere to the Montana/Idaho State Airshed Group regulations and Montana Department of Environmental Quality.
- The DNRC, would burn only on approved days. DNRC would also follow regulation Lincoln County has for Air Quality. Thus, direct, secondary, and cumulative effects to air quality due to slash pile burning associated with the proposed action would be minimal.
- Dust abatement may be required on portions of roads effecting subdivision residence if deemed necessary by the Forest Officer.

ARCHAEOLOGICAL SITES / AESTHETICS / DEMANDS ON ENVIRONMENTAL RESOURCES:

Archaeological Sites Existing Conditions: The DNRC archaeologist has reviewed the area of potential effect on state land. Both historic and prehistoric cultural resources have been identified in the project area. Those resources consist of prehistoric (and subsequent historic trail route (24LN2184), lithic scatters (24LN1791 and 24LN2259), and remnants of historic timber harvesting (24LN1172). Sites 24LN1172, 24LN2184, and 24LN2259 have not been adequately evaluated to determinate if they are heritage properties as defined in the State Antiquities Act. Site 24LN1172 was previously determined to be a heritage property through consultation between the USFS and the SHPO. Mitigation is intended to be directed at lessening project related impacts that cause the qualities of a National Register eligible cultural resource to be diminished. Because of the heavily disturbed and horizontally extensive nature of these sites, a minimal amount of ground disturbance focused on an existing road/trail tread will very likely not cause intact cultural materials to be dislodged and redeposited. Project related impacts to cultural resources is thus expected to be low.

Will Alternative result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Historical or Archaeological Sites	x				x				x					
Aesthetics	x				x				x					

Will Alternative result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
Demands on Environmental Resources of Land, Water, or Energy	x				x				x					
Action														
Historical or Archaeological Sites		x			x					x			Y	1
Aesthetics		x				x				x			Y	2
Demands on Environmental Resources of Land, Water, or Energy	x				x				x					

Comments:

1. Although no unanticipated cultural resources discoveries are expected, the DNRC Archaeologist will inspect post-construction work to see if cultural remains were exposed during ground disturbing activities. In the event that such materials are located, they will be evaluated and project related effects will be assessed.
2. The project area is not located in a highly visible area though is close to Libby and used by hunters, hikers and the residence of the adjacent subdivisions. The harvest units would be visible from roads within the project area and from properties bordering the unit. Active forest management is prevalent in this area, and is evident on all viewsheds surrounding Libby. Within the project area, harvested stands would look more open with fewer trees per acre.

Mitigations:

- Following harvest, landing and slash would be visible but forest improvement work and burning of slash piles and landings would be planned within a year of harvest and this would speed up the recovery of the vegetation that would eventually mitigate the impacts of logging.
- If any potentially undisturbed cultural remains are discovered during the course of the project, all construction work will cease until the DNRC archaeologist is notified and the unanticipated discovery is adequately evaluated.

OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA: *List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.*

- Plantation Road Easement Grant Categorical Exclusion (2011)
  This was a complementary action to access the proposed timber sale

Impacts on the Human Population

Evaluation of the impacts on the proposed action including **direct, secondary, and cumulative** impacts on the Human Population.

Will Alternative result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
No-Action														
Health and Human Safety	X				X				X					
Industrial, Commercial and Agricultural Activities and Production	X				X				X					
Quantity and Distribution of Employment	X				X				X					
Local Tax Base and Tax Revenues	X				X				X					
Demand for Government Services	X				X				X					
Access To and Quality of Recreational and Wilderness Activities	X				X				X					
Density and Distribution of population and housing	X				X				X					
Social Structures and Mores	X				X				X					
Cultural Uniqueness and Diversity	x				X				X					
Action														
Health and Human Safety		X			x				x					1
Industrial, Commercial and Agricultural Activities and Production		x			x				x					2
Quantity and Distribution of Employment		x			x				x					3
Local Tax Base and Tax Revenues	x				x				x					
Demand for Government Services	X				X				X					
Access To and Quality of Recreational and Wilderness Activities	X				X				X					
Density and Distribution of	X				X				X					

Will Alternative result in potential impacts to:	Impact												Can Impact Be Mitigated?	Comment Number
	Direct				Secondary				Cumulative					
	No	Low	Mod	High	No	Low	Mod	High	No	Low	Mod	High		
population and housing														
Social Structures and Mores	X				X				X					
Cultural Uniqueness and Diversity	X				X				X					

Comments:

1. No unusual safety considerations are associated with the proposed project. Because of the relatively small size of the proposed project, and mitigations measure that would be taken, health and safety risks posed by the project would be minimal.
2. A consistent flow of timber contributes towards meeting the current and future demand of these construction materials.
3. Employment in the logging industry is common in the area and this project would in a small part contribute to local employment.

Locally Adopted Environmental Plans and Goals: *List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.*

- There are no zoning or other agency management plans affecting this project area.

Other Appropriate Social and Economic Circumstances:
Costs, revenues and estimates of return are estimates intended for relative comparison of alternatives. They are not intended to be used as absolute estimates of return. The estimated stumpage is based on comparable sales analysis. This method compares recent sales to find a market value for stumpage. These sales have similar species, quality, average diameter, product mix, terrain, date of sale, distance from mills, road building and logging systems, terms of sale, or anything that could affect a buyer's willingness to pay.

No Action: The No Action alternative would not generate any return to the trust at this time.

Action: The timber harvest would generate additional revenue for the Public Buildings Trust. The estimated return to the trust for the proposed harvest is $562,000 based on an estimated harvest of 3,340 thousand board feet (22,480 tons) and an overall stumpage value of $25.00 per ton. Costs, revenues, and estimates of return are estimates intended for relative comparison of alternatives, they are not intended to be used as absolute estimates of return.

References

DNRC 1996. State forest land management plan: final environmental impact statement (and appendixes). Montana Department of Natural Resources and Conservation, Forest Management Bureau, Missoula, Montana.

DNRC. 2010. Montana Department of Natural Resources and Conservation Forested State Trust Lands Habitat Conservation Plan: Final EIS, Volume II, Forest Management Bureau, Missoula, Montana.

Does the proposed action involve potential risks or adverse effects that are uncertain but extremely harmful if they were to occur?
None that are known or anticipated.

Does the proposed action have impacts that are individually minor, but cumulatively significant or potentially significant?
None that are known or anticipated.

Environmental Assessment Checklist Prepared By:

Name: Jeremy Rank
Title: Management Forester
Date: December 30, 2016

Finding

Alternative Selected

Upon review of the Checklist EA and appendices, I find that the action alternative as proposed meets the intent of the project objectives as stated on page 1, Type and Purpose of Action. It complies with all pertinent environmental laws, DNRC State Forest Land Management Plan, and a consensus of professional opinion on limits of acceptable environmental impact. The No Action Alternative does not meet the project objectives. For these reasons I have selected the Action Alternative for implementation on this project.

Significance of Potential Impacts

After a thorough review of the scoping documents, Department policies, standards, guidelines, and the State Forest Land Management Plan (SFLMP), I find all the identified resource management concerns have been fully addressed in this Checklist EA and its attachments. The action alternative provides for income to the school trust and promotes the development of a healthy, biologically diverse, and productive forest. It also provides the opportunity to improve access and road maintenance within the project area. I find there will be no significant impacts to the human environment as a result of implementing the action alternative. Specific project design features and various resource management specialist recommendations have been implemented to ensure that this project will fall within the limits of acceptable environmental change and result in no significant effects.

Need for Further Environmental Analysis

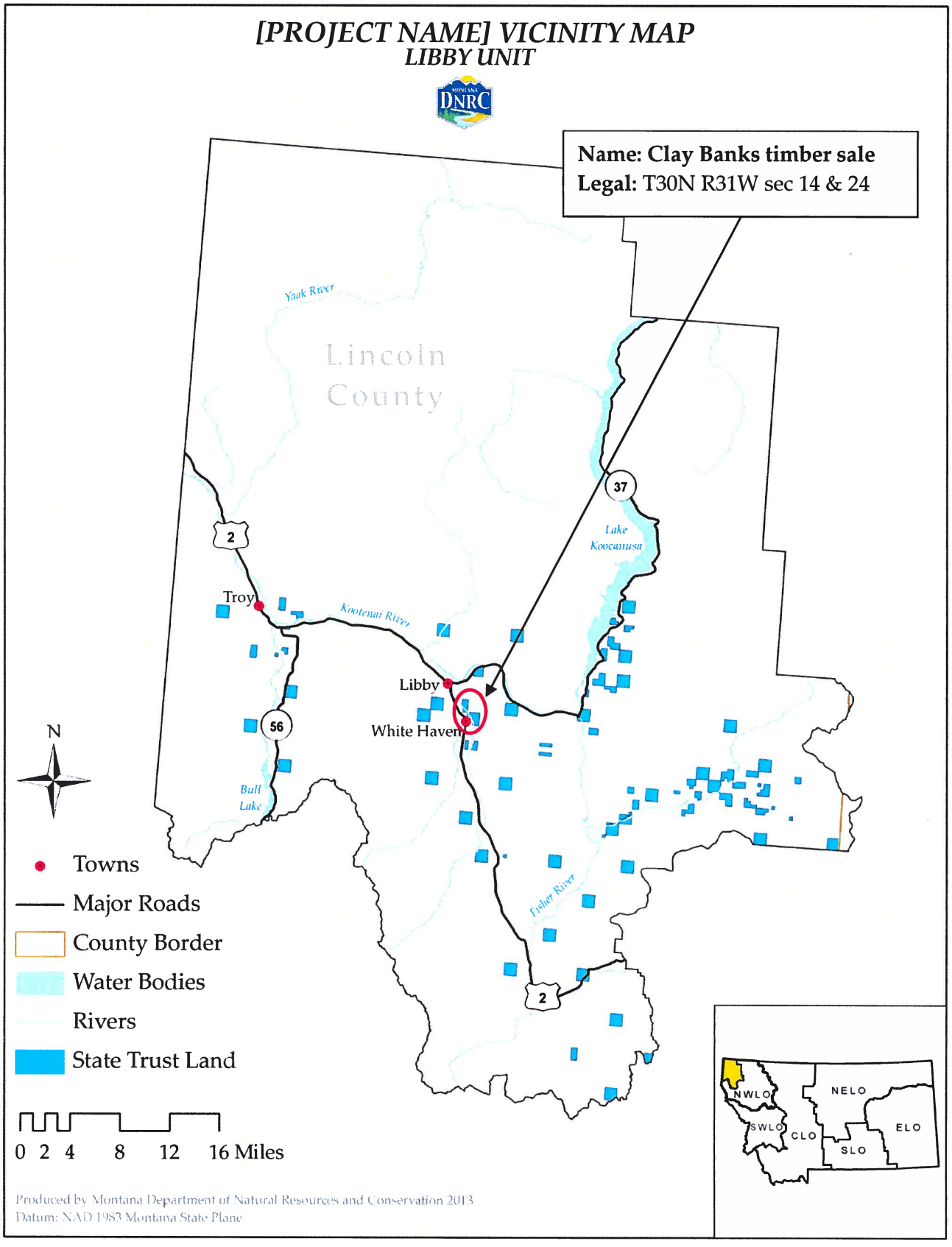
[ ]	EIS	[ ]	More Detailed EA	[X]	No Further Analysis

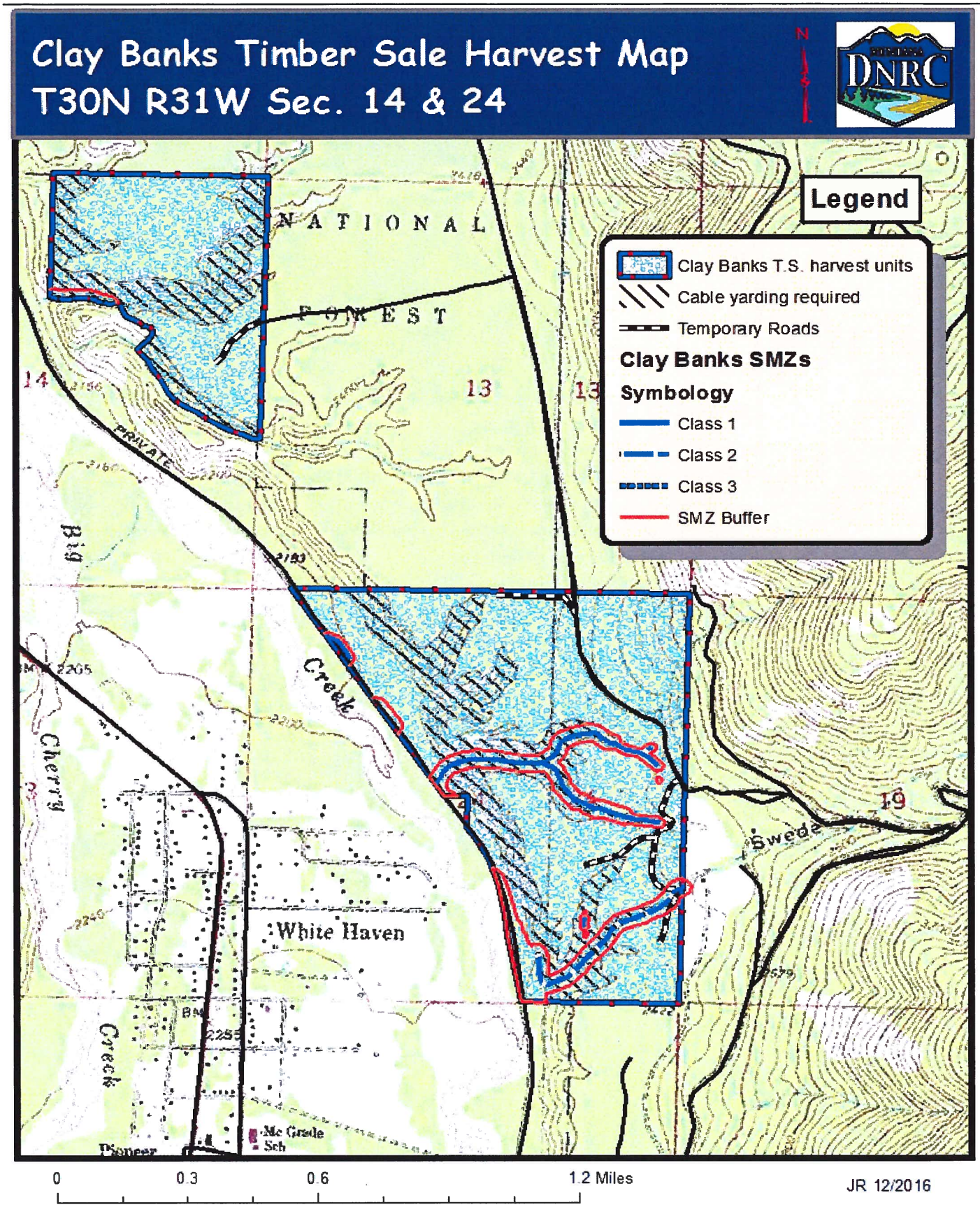
Environmental Assessment Checklist Approved By:

Name: Douglas Turman
Title: Libby Unit Manager
Date: January 10, 2017
Signature: Douglas Turman

Attachment A- Maps

A-1: Timber Sale Vicinity Map




Clay Banks Timber Sale Harvest Map
T30N R31W Sec. 14 & 24
N
DNRC
Legend
Clay Banks T.S. harvest units
Cable yarding required
Temporary Roads
Clay Banks SMZs
Symbology
Class 1
Class 2
Class 3
SMZ Buffer
NATIONAL
FOREST
PRIVATE
Big
Cherry
Creek
White Haven
Swede
14
13
19
0
0.3
0.6
1.2 Miles
JR 12/2016

Clay Banks Timber Sale
Yarding & Road Construction Map
T30N R31W Sec. 14 & 24